Product datasheet

Anti-Ihh antibody [EP1192Y] ab52919

Recombinant RabMAb

Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-Ihh antibody [EP1192Y]</th>
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</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit monoclonal [EP1192Y] to Ihh</td>
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<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: WB, IHC-P</td>
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<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Rat, Human</td>
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<tr>
<td>Immunogen</td>
<td>corresponding to Human Ihh aa 1-100.</td>
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<tr>
<td>Positive control</td>
<td>WB: Mouse brain, Rat brain, Human fetal colon tissue, fetal brain lysate and Human brain lysates. IHC-P: human liver, mouse liver, and rat liver tissues.</td>
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</tbody>
</table>

General notes

This product is a recombinant monoclonal antibody, which offers several advantages including:
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

Properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
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</table>
Storage buffer: pH 7.20
Preservative: 0.01% Sodium azide
Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

Purity: Protein A purified
Clonality: Monoclonal
Clone number: EP1192Y
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab52919 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>WB</td>
<td>1/1000. Predicted molecular weight: 45 kDa.</td>
<td></td>
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<tr>
<td>IHC-P</td>
<td>1/50. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. See IHC antigen retrieval protocols.</td>
<td></td>
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</tbody>
</table>

Target

Function: Intercellular signal essential for a variety of patterning events during development. Binds to the patched (PTC) receptor, which functions in association with smoothened (SMO), to activate the transcription of target genes. Implicated in endochondral ossification: may regulate the balance between growth and ossification of the developing bones. Induces the expression of parathyroid hormone-related protein (PTHRP).

Tissue specificity: Expressed in embryonic lung, and in adult kidney and liver.

Involvement in disease: Defects in IHH are the cause of brachydactyly type A1 (BDA1) [MIM:112500]. BDA1 is an autosomal dominant disorder characterized by middle phalanges of all the digits rudimentary or fused with the terminal phalanges. The proximal phalanges of the thumbs and big toes are short. Defects in IHH are a cause of acrocapitofemoral dysplasia (ACFD) [MIM:607778]. ACFD is a disorder characterized by short stature of variable severity with postnatal onset. The most constant radiographic abnormalities are observed in the tubular bones of the hands and in the proximal part of the femur. Cone-shaped epiphyses or a similar epiphyseal configuration with premature epimetaphyseal fusion result in shortening of the skeletal components involved. Cone-shaped epiphyses were also present to a variable extent at the shoulders, knees, and ankles.

Sequence similarities: Belongs to the hedgehog family.

Post-translational modifications: The C-terminal domain displays an autoproteolysis activity and a cholesterol transferase activity. Both activities result in the cleavage of the full-length protein and covalent attachment of a cholesterol moiety to the C-terminal of the newly generated N-terminal fragment (N-product). The N-product is the active species in both local and long-range signaling, whereas the C-product has no signaling activity. Cholesterylation is required for N-product targeting to lipid rafts and multimerization. Palmitoylated. N-palmitoylation is required for N-product multimerization and full activity.
Cellular localization
Secreted > extracellular space. The C-terminal peptide diffuses from the cell and Cell membrane. The N-terminal peptide remains associated with the cell surface.

Images

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat liver tissue sections labeling Ihh with Purified ab52919 at 1:50 dilution (3.16 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used for detection. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse liver tissue sections labeling Ihh with Purified ab52919 at 1:50 dilution (3.16 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used for detection. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver tissue sections labeling Ihh with Purified ab52919 at 1:50 dilution (3.16 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used for detection. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

**Western blot - Anti-Ihh antibody [EP1192Y]** (ab52919)

Anti-Ihh antibody [EP1192Y] (ab52919) at 1/1000 dilution (Purified) + Human brain lysates at 15 µg

**Secondary**

Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

**Predicted band size:** 45 kDa

**Observed band size:** 45 kDa
Western blot - Anti-Ihh antibody [EP1192Y] (ab52919)

All lanes: Anti-Ihh antibody [EP1192Y] (ab52919) at 1/1000 dilution (Purified)

Lane 1: Mouse brain lysates
Lane 2: Rat brain lysates

Lysates/proteins at 15 µg per lane.

Secondary
All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 45 kDa
Observed band size: 45 kDa

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ihh antibody [EP1192Y] (ab52919)

ab52919 (unpurified) at 1/250 dilution staining human fetal colon tissue; paraffin embedded.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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